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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* AHI GVRTSMAN, DAVID TRASTOUR, and  
MAHER RAHMOUNI

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Appeal 2015-008185<sup>1</sup>  
Application 12/867,107<sup>2</sup>  
Technology Center 3600

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Before ANTON W. FETTING, CYNTHIA L. MURPHY, and  
TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1, 2, 4, 5, 13, 14, and 16–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> Our Decision references Appellants’ Appeal Brief (“App. Br.,” filed Jan. 21, 2014) and Reply Brief (“Reply Br.,” filed Sept. 9, 2015), and the Examiner’s Answer (“Ans.,” mailed July 9, 2015) and Final Office Action (“Final Act.,” mailed July 18, 2013).

<sup>2</sup> Appellants identify Hewlett-Packard Development Company, L.P. as the real party in interest. App. Br. 2.

### CLAIMED INVENTION

Claims 1 and 13 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the subject matter:

1. A method of changing an information technology system comprising a plurality of interacting components, the method comprising:

defining a plurality of available maintenance windows;  
accessing a first database of component changes to be made to one or more of the components, each component change comprising a workflow of at least one activity having a duration;  
accessing a second database listing the components and dependencies between the components;

generating with a processor change constraints for the component changes based on the dependencies and the component changes;

generating with the processor a set of individual preference scores, each individual preference score being associated with a respective one of the change constraints and each individual preference score indicating a preference for relaxing the respective change constraint;

attempting to generate with the processor a first change schedule for the component changes in one or more of the available maintenance windows, the first change schedule satisfying a first set of the change constraints; and

when a first change schedule satisfying the first set of change constraints cannot be generated, adjusting, with the processor, the individual preference scores and attempting to generate a second change schedule satisfying a second set of the change constraints, the second set of the change constraints being associated with the adjusted individual preference scores that meet a threshold.

### REJECTIONS

Claims 1, 2, 4, 5, 13, 14, and 16–21 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Appeal 2015-008185  
Application 12/867,107

Claims 1, 2, 5, 13, 14, and 17–21 are rejected under 35 U.S.C. § 103(a) as unpatentable over Naik (US 7,930,202 B2, iss. Apr. 19, 2011), Hellerstein (US 2005/0204358 A1, pub. Sept. 15, 2005), Winnard (US 6,871,182 B1, iss. Mar. 22, 2005), Zweben (US 6,216,109 B1, iss. Apr. 10, 2001).

Claims 4 and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Naik, Hellerstein, Winnard, Zweben, and Christodoulou (US 2008/0270213 A1, pub. Oct. 30, 2008).

## ANALYSIS

### *Non-Statutory Subject Matter*

#### *Independent Claim 1, and Dependent Claims 2, 4, 5, and 18–21*

We are not persuaded by Appellants’ argument that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101 because the Examiner failed to comply with the USPTO’s July 2015 Update: Subject Matter Eligibility by setting forth “similarity between the concept alleged to be abstract in the Examiner’s Answer and any patent ineligible abstract idea identified by the courts.” App. Br. 4 (citing USPTO’s July 2015 Update: Subject Matter Eligibility, 3 (available at <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf>) (hereinafter “July 2015 Update”)).

As an initial matter, Office guidance, such as the July 2015 Update, which updates the USPTO’s *2014 Interim Guidance on Patent Subject Matter Eligibility*, does not have the force of law. *See, e.g., 2014 Interim Guidance on Patent Subject Eligibility*, 79 Fed. Reg. 74618, 74619 (Dec. 16, 2014) (“This Interim Eligibility Guidance does not constitute substantive

rulemaking and does not have the force and effect of law.”) (hereinafter “2014 Interim Guidance”). An Examiner’s failure to follow guidance is appealable only to the extent that the Examiner has failed to follow the statutes or case law. *See id.* (“This Interim Eligibility Guidance . . . is not intended to create any right or benefit . . . enforceable by any party against the Office,” and “[f]ailure of Office personnel to follow this Interim Eligibility Guidance is not, in itself, a proper basis for either an appeal or a petition.”) Thus, to the extent the guidance goes beyond the case law and is more restrictive on the Examiner than the case law, the failure of the Examiner to follow those added restrictions is not, in itself, a basis for appeal. We are aware of no controlling precedent, nor do Appellants identify any controlling case law, that requires an Examiner to show that the claimed concept is similar to a concept that a court has identified as being patent-ineligible.

Further, contrary to Appellants’ suggestion, the July 2015 Update does not require Examiners to cite case law to establish that a case is directed to an abstract idea. *See* July 2015 Update 6 (the Examiner’s “rationale **may rely**, where appropriate, on the knowledge generally available to those in the art, on the case law precedent, on applicant’s own disclosure, or on evidence”) (emphasis added).

Nonetheless, the Examiner indeed finds the pending claims are directed to a “method of changing an information technology system,” and are analogous to the patent-ineligible claims in *Planet Bingo, LLC v. VKGS LLC*, 576 Fed.Appx. 1005 (Fed. Cir. 2014) in that they involve “purely mental steps,” i.e., an abstract idea. Ans. 3–4.

We are not persuaded that the Examiner erred in finding that the pending claims are directed to an abstract idea because they recites steps that can be performed by a person mentally or using pen and paper. Here, claim 1, for example, recites a method of changing an information technology system and recites the following sequence of steps: (1) defining a plurality of available maintenance windows, (2) accessing a first database of component changes to be made, (3) accessing a second database listing the components and dependencies between the components, (4) generating . . . change constraints for the component changes based on the dependencies and the component changes, (5) generating . . . a set of individual preference scores, (6) attempting to generate . . . a first change schedule for the component changes, and (7) when a first change schedule satisfying the first set of change constraints cannot be generated, adjusting . . . the individual preference scores and attempting to generate a second change schedule satisfying a second set of the change constraints.

We agree with the Examiner that these steps could be performed by a human mentally or with pen and paper. And the Examiner's finding is supported by Appellants' Specification, which describes, for example, that "[i]n an embodiment, each activity may require a skilled human resource[,] such as a technician." *See* Spec. 3, ll. 20–21. The Federal Circuit has held that if a method can be performed by human thought alone, or by a human using pen and paper, it is merely an abstract idea, and is not patent-eligible under § 101. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) (“[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.”). *See also Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)

("[p]henomena of nature . . . , mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work."); *Elec. Power Grp. LLC v. Alstom*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (collecting information and “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category.”).

We are not persuaded by Appellants’ conclusory statement that claim 1 is analogous to Example 27 in the *July 2015 Update Appendix 1: Examples* issued by the Office on July 30, 2015, available at <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-app1.pdf> (hereinafter “July 2015 Update Appendix”) where it is “self-evident that no judicial exception is being claimed.” Reply Br. 4. In Example 27, claim 15 recites a series of steps for loading BIOS on a local computer system from a remote storage location. July 2015 Update Appendix, 22. Eligibility of claim 15 in Example 27 is “self-evident,” because the steps for initializing a local computer using BIOS code, triggering transfer of the BIOS code between two memory locations upon a powering up of the computer, and transferring control of the processor operations to the BIOS code make clear that the claims are directed to a technical invention, not an abstract idea that is merely implemented using generic computer components. *Contrast id.* (“[C]omputers and computer operations are not automatically subjected to an eligibility analysis”) with *id.* (“Courts have found computers and computer implemented processes to be ineligible when generic computer functions are merely used to implement an abstract idea, **such as an idea that could be done by human analog (i.e., by hand or by merely**

**thinking**.”) (emphasis added). Appellants fail to explain, and we do not see, any parallel between Appellants’ claim 1 and claim 15 of Example 27 in the July 2015 Update Appendix. To the contrary, claim 1 appears analogous to the class of patent-ineligible claims described in Example 27, namely ideas that can be implemented by a human analog, by hand or with thought alone.

Appellants argue that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101 because the Examiner fails to consider the claims as a whole. *See* Reply Br. 5–6, 8 (citing 2014 Interim Guidelines; 2015 July Update; and *PNC Bank v. Secure Access*, Case No. CBM2014-00100, 2014 WL 453440 (PTAB Sept. 9, 2014)). It is true that claims are to be considered in their entirety to determine “whether their character as a whole is directed to excluded subject matter.” *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). Yet aside from charging the Examiner with over generalization, Appellants present no persuasive argument or technical reasoning to rebut the Examiner’s finding that the claims, as a whole, are directed to a “method of changing an information technology system,” and recite steps that can be performed by a human mentally or with pen and paper, i.e., an abstract idea. The Examiner’s finding is consistent with the Specification. *See, e.g.*, Spec. 1, ll. 4–5 (“The present invention relates to a method for changing an information technology system comprising a plurality of interacting components.”). As such, we are not apprised that the Examiner failed to consider the claims as a whole.



We are not persuaded by Appellants’ argument that the claims do not pre-empt “the alleged ‘abstract idea’ of changing an information technology system.” Reply Br. 9. There is no dispute that the Supreme Court has described “the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption.” *See Alice Corp.*, 134 S. Ct. at 2354. But characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice Corp.*, 134 S. Ct. at 2354). “[P]reemption may signal patent ineligible subject matter, [but] the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

We are not persuaded by Appellants’ argument that claim 1 includes additional limitations that alone or as an ordered combination amount to substantially more than a claim to the abstract idea itself under step two of the *Alice* framework. *See* Reply Br. 11–15. In this regard, Appellants quote the language of independent claim 1 and summarily assert: “the problem is solved [by claim 1] in a very particular manner” (*id.* at 13), claim 1 “is not tying up the alleged abstract idea of ‘changing an information technology system’” (*id.*), and the combination recited in claim 1 “is not routine, well-understood or conventional” (*id.* at 14). Yet, an abstract idea implemented in a very particular manner is no less abstract. Likewise, a lack of preemption does not make an abstract idea any less abstract. And,

Appellants provide no persuasive argument or technical reasoning to support the assertion that the combination of elements recited in claim 1 amounts to significantly more than the abstract idea identified by the Examiner.

We are not persuaded for the reasons set forth above that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101. Therefore, we sustain the Examiner's rejection of independent claim 1 under 35 U.S.C. § 101. We also sustain the rejection of dependent claims 2, 4, 5, and 18–21, which are not argued separately.

*Independent Claim 13, and Dependent Claims 14, 16, and 17*

Appellants advance the same arguments with respect to claim 13 as advanced for claim 1 and, thus, are similarly unpersuasive. *See* Reply Br. 15–16. Therefore, we sustain the Examiner's rejection of independent claim 13 under 35 U.S.C. § 101 for the same reasons set forth above with respect to claim 1. We also sustain the rejection of dependent claims 14, 16, and 17, which are not argued separately.

*Obviousness*

*Independent Claim 1, and Dependent Claims 5 and 21*

In rejecting claim 1 under 35 U.S.C. § 103(a), the Examiner acknowledges that Naik and Hellerstein do not disclose

when a first change schedule satisfying the first set of change constraints cannot be generated, adjusting, with the processor, the individual preference scores and attempting to generate a second change schedule satisfying a second set of the change constraints, the second set of the change constraints being associated with the adjusted individual preference scores that meet a threshold[,]

as recited in claim 1. Final Act. 7. However, the Examiner finds that Zweben describes relaxing constraints for scheduling problems that cannot

be resolved. *Id.* (citing Zweben col. 1, ll. 46–64, col. 7, ll. 4–21). And the Examiner determines that it would have been obvious to one of ordinary skill in the art, in view of Zweben, to modify Naik and Hellerstein to relax constraints to a predefined acceptable degree when a schedule is over-constrained. *See id.*; *see also* Ans. 5 (Zweben describes that relaxing constraints is “old and well known in the art”).

Zweben relates to a system for scheduling a complex activity that includes performance of a multiplicity of tasks by combining techniques of constraint-based iterative repair with techniques of material requirements planning. *Id.* at col. 1, ll. 15–16, 22–25. Scheduling is a process of assigning times and resources to tasks, and scheduling assignments must satisfy a set of constraints, such as temporal constraints, resource constraints, milestone constraints, and resource constraints. *Id.* at col. 1, ll. 39–45. Constructive scheduling refers to a technique for developing schedules for complex activities by developing a partial schedule from scratch that does not violate the set of constraints, and then incrementally extending the partial schedule. *Id.* at col. 1, ll. 46–55. One constructive scheduling technique involves “meet[ing] the [set of] constraint[s] as best it can,” and “relax[ing the set of constraints] to the degree necessary to eliminate [a] constraint violation” when a partial schedule fails to satisfy the set of constraints. *Id.* at col. 1, ll. 61–65. Constraint-based iterative repair, on the other hand, is another technique for developing schedules for complex activities by iteratively modifying a complete schedule that does not adequately satisfy the set of constraints until one of the modified schedules adequately satisfies the set of constraints. *Id.* at col. 2, ll. 1–5.

Appellants argue that Zweben does not involve adjusting weights when a first set of change constraints cannot be generated, but instead describes adjusting a weight when an activity associated with a constraint has changed, necessitating adjustment of the corresponding weight to reflect changes in the nature of the activity. App. Br. 6–7 (citing Zeben col. 26, ll. 43–58). Appellants further argue that Zweben does not “contemplate[] a change in an activity associated with a constraint to occur during the process of attempting to generate [a] schedule,” because Zweben does not describe monitoring or identifying activity changes. *Id.* at 7. Appellants contend that Zweben describes generating a revised change schedule without relaxing the set of pre-defined constraints. *Id.* at 7–8. And Appellants assert that there is no description of generating a second change schedule that satisfies a second set of change constraints. *Id.* at 8.

Appellants’ arguments thus focus on differences between Zweben’s preferred embodiments and Appellants’ claim 1. But the Examiner relies on Zweben for describing in the Background section a known constructive scheduling method that involves relaxing a constraint to the degree necessary to eliminate a constraint violation when a partial schedule fails to satisfy a constraint. *See* Final Act. 7 (citing Zweben, col. 1, ll. 46–64).

In the Reply Brief, Appellants concede that Zweben describes in the Background section that relaxing constraints during constructive scheduling was known in the art. *See* Reply Br. 2 (“Appellant[s] do[] not dispute that Zweben . . . describ[es] the relaxation of constraints in the context of a ‘constructive scheduling method.’”) But Appellants nonetheless contend that relaxing constraints does not teach the argued limitation. *Id.*

Appellants' arguments are not persuasive, at least because the Examiner does not find that Zweben alone describes the argued limitation. Instead, the Examiner finds that Zweben describes relaxing constraints, and determines the argued limitation would have been an obvious modification of Naik and Hellerstein in view of Zweben in the event the schedule is over-constrained. "Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references." *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

The Supreme Court has made clear that, when considering obviousness, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Here, the Examiner determines, and we agree, that relaxing a first set of change constraints when a scheduling problem cannot be solved, as described by Zweben, produces a second set of change constraints, and suggests attempting to generate a second change schedule that satisfies the second set of change constraints. *See* Ans. 5–6.

In the absence of any arguments or technical reasoning by Appellants explaining why the Examiner erred in determining that it would have been obvious to one of ordinary skill in the art to modify Naik and Hellerstein to arrive at the claimed invention in view of Zweben, we are not persuaded of Examiner error.

In view of the foregoing, we sustain the Examiner's rejection of independent claim 1, and dependent claims 5 and 21 under 35 U.S.C. § 103(a).

*Independent Claim 13 and Dependent Claim 17*

Independent claim 13 includes language substantially similar to the language of claim 1, and stands rejected based on the same findings and rationale applied with respect to claim 1. *See* Final Act. 13–16. Appellants advance the same arguments for claim 13 as advanced for claim 1. *Compare* App. Br. 6–8 (claim 1 arguments) *with id.* at 9–10 (claim 13 arguments); *see also* Reply Br. 2–4 (arguing claims 1 and 13 as a group). We are not persuaded for the reasons set forth above that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a). Therefore, we do not sustain the rejection under 35 U.S.C. § 103(a) of independent claim 13, and dependent claim 17, for the same reasons set forth above with respect to claim 1.

*Dependent Claims 4 and 16*

Claims 4 and 16 depend from claims 1 and 13, respectively. Appellants do not separately argue the rejection under 35 U.S.C. § 103(a) of dependent claims 4 and 16. Therefore, we sustain the rejection under 35 U.S.C. § 103(a) of claims 4 and 16, for the same reasons set forth above with respect to independent claims 1 and 13.

*Dependent Claims 2, 14, and 18–20*

Claim 2 depends from claim 1 and further recites that “a first individual preference score is generated based on a preference score production rule comprising a condition and an amount by which to adjust the first individual preference score when the condition is met.” Claim 14 depends from claim 13 and recites similar language.

In rejecting claims 2 and 14 under 35 U.S.C. § 103(a), the Examiner acknowledges that Naik fails to disclose or suggest the features of claims 2 and 14, and cites Hellerstein to cure the deficiency. Final Act. 8 (citing Hellerstein ¶¶ 26–27 as describing that “the overall profits are optimized based on the individual values calculated for individual jobs minus their individual costs[;] [s]tart times are assigned based on the optimized function.”), 16 (citing Hellerstein ¶¶ 26–27).

However, we agree with Appellants that there is nothing in paragraphs 26–27 of Hellerstein that discloses or suggests the limitations recited in claim 2, and similarly recited in claim 14. App. Br. 17–18. Instead, Hellerstein discloses that the “invention attempts to maximize the value associated with the jobs that will be done within a given change window minus the total costs of jobs that will be done,” “thus optimizing the overall profits” while satisfying a set of constraints. Hellerstein ¶ 27. We fail to see how, and the Examiner does not adequately explain how, assigning start times to optimize overall profits teaches or suggests generating a first individual preference score based on a preference score production rule comprising a condition and an amount by which to adjust the first individual preference score when the condition is met,” as recited in claim 2, and similarly recited in claim 14.

In view of the foregoing, we do not sustain the Examiner’s rejection of claims 2 and 14, and claims 18–20 which depend from claim 2, under 35 U.S.C. § 103(a).

DECISION

The Examiner's rejection of claims 1, 2, 4, 5, 13, 14, and 16–21 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejections of claims 1, 4, 5, 13, 16, 17, and 21 under 35 U.S.C. § 103(a) are affirmed.

The Examiner's rejection of claims 2, 14, and 18–20 under 35 U.S.C. § 103(a) is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED